

Questions Regarding Variants in *ADIPOQ* in Maternal Circulating Adipokine Profile in Gestational Diabetes Mellitus [Letter]

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Dear editor

The altered secretion or increased levels of released adipokine have been reported to contribute to several metabolic diseases, such as diabetes mellitus, obesity, and cardiovascular disorders.¹ Specific to diabetogenic adipokine, apelin was recently reported to be the novel adipokine in diabetes mellitus cases, playing a potent role in inducing the production of hepatic glucose and influencing the appetite levels of the patients. In addition, a previous study mentioned that the polymorphism of *ADIPOQ* rs17366743 was one of the integrating common risk factors, besides *CCL20* rs6749704, *TCF7L2* rs114758349, and *CCL2* rs1024611, associated with the prediction of type 2 diabetes on the Eurasian continent.²

The study performed by Tangjittipokin et al was recently read and reviewed by our group. We do feel gratitude towards the authors of this article.³ However, a few discussions provided here could, hopefully, be considered as insightful input in their future studies. The study was performed in order to investigate the association of *ADIPOQ* gene polymorphisms in pregnant women who could probably be diagnosed with gestational diabetes mellitus.³ However, the polymorphisms of the *ADIPOQ* gene were detected from rs266729, rs2241766, and rs1501299. This study detected polymorphisms that were not included among those playing an important role as a risk factor in a previous report.² In addition, we noticed that there were several types of adipokine serums detected in their study, such as adiponectin, adiponectin factor D, lipocalin, total PAI-1, and resistin.³ However, a previous study stated that circulating apelin, the adipokine serum, was reviewed as a promising candidate for both novel pharmacological treatment strategies and diagnostic tools in clinical cases of diabetes mellitus.¹ Therefore, the detection of apelin was recommended to be included in future studies to reach a comprehensive conclusion.

This study demonstrated that maternal age, pre-pregnancy BMI, and increasing body weight not associated with gestational diabetes mellitus could not be utilized as predictive factors. Moreover, the expression of adiponectin receptors and methylation of the adiponectin gene promoter have been reported to be associated in the development of dementia in patients diagnosed with Alzheimer's disease.⁴ However, the expression of adiponectin receptors in gestational diabetes mellitus patients could not be detected, while a study on methylation has been reported previously.⁵ An additional thoughtful response to this interesting study is that the detection of polymorphisms of the *ADIPOQ* gene in the study model of *Macaca fascicularis* was suggested to be performed in future research, such as that performed in a previous study.⁶

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Disclosure

All authors report no conflicts of interest in this communication.

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